

PARTNER :

AGILE
LETHAL
RESPONSIVE
VERSATILE
SURVIVABLE
DEPLOYABLE
SUSTAINABLE

SMARTRUCK



SMARTRUCK ...THE ARMY'S "JAMES BOND-LIKE" CONCEPT VEHICLE

How will the Army modernize and equip its fleet of light tactical vehicles in the future?

What kind of equipment will soldiers use to become more responsive, deployable and agile?

Will technologies currently under development by the National Automotive Center and its partners be equally effective in "other than war" encounters?

Introducing the SmarTruck...a concept vehicle designed to provide the Army a vehicle platform to test, integrate and showcase cutting-edge automotive technologies. This project allows the Army to insert the latest in wireless communications, situational awareness and soldier safety technologies into its tactical wheeled vehicles. The objective is to demonstrate these technologies through electronic integration of commercially available intelligent subsystems using an SAE-approved standard data link.

Developed by the National Automotive Center in partnership with Integrated Concepts & Research Corporation (ICRC), MSX International and others.

Integrated Concepts & Research Corporation (ICRC)
1115 E. Whitcomb Ave.
Madison Heights, MI 48071
POC: Russ Maze
Phone: 248-823-4286
rmaze@icrc-detroit.net
Web site: www.icrc-hq.com/st.htm

MSX International
275 Rex Blvd.
Auburn Hills, MI 48326
POC: Chris Johnson
Phone: 248-299-1076
cjohnston@msxi.com
Web site: www.msxi.com

International Armoring Corporation
2335 Lincoln Ave.
Ogden UT, 84401
POC: Mark Burton
Phone: 801-393-1075
mburton190@aol.com
Web site: www.armormax.com

**U.S. Army TACOM
National Automotive Center**
AMSTA-TR-N/272
6501 E. 11 Mile Road
Warren, MI 48397-5000
POC: Germaine Simms
Phone: 810-574-8959
fullerg@tacom.army.mil





NATIONAL AUTOMOTIVE CENTER

Bulletproof glass - International Armoring Corporation

All glass is designed to withstand handguns up to and including a .44 magnum.

Pepper spray dispensers - ICRC

Pepper spray dispensers, one in each corner of the cab, are controlled by the PanelMates. They are capable of propelling the spray a distance of up to 12 feet.

High voltage door handles - ICRC

There are four voltage door handles located on the vehicle - one on each of the four doors. When activated, the door handles maintain a voltage high enough to temporarily stun an intruder.

Mobile video system - Audiovox

There are three mobile video monitors; one flip-down monitor in the overhead console and one on each headrest of the front seats. The system has full "entertainment center" capabilities and can display DVD movies and briefings played on the ECLIPSE Commander. The overhead monitor also displays the images captured by the night vision system.

Night Vision - Raytheon

The night vision camera rises out of the cab of the truck through a sliding door. The camera is controlled by the PanelMates. It can pan 360 degrees, capturing images to display on the Mobile Video System.

Vehicle Build - MSX International

This modified Ford F-350 pickup truck has new body styling and part fabrication as seen on the front and rear fascia, center exhaust, ground effects, styled side panels and wheel wells on the exterior. The interior features a customized dash, console, rear sliding seats and crawl space to allow access to the weapon systems.

PanelMates - Square D

There are three PanelMates on the SmarTruck. They allow touch screen access to all countermeasures (dazzling lights, high voltage door handles, oil slicks, etc.) and the night vision system. Access is controlled by the fingerprint identification units.

ECLIPSE Commander - Fujitsu Ten Corporation of America

This replaces the existing radio on the dashboard. It plays DVD briefings or movies on the Mobile Video System, and voice controls radio, cell phone, power windows and doors.

Truck PC - DriverTech

Located in the center console, the Truck PC uses a touch screen monitor to display maps. Vehicle-to-vehicle communication and load management features are included on the Truck PC.

Dazzling lights - ICRC

There are two pairs of dazzling lights on the SmarTruck: one pair on the front grill; the second, in the back of the vehicle. The lights are so bright that the enemy cannot look directly at the vehicle or pursue it any further. They are activated and controlled (the front pair can pan and tilt) from the PanelMates.

Fingerprint Identification - AuthenTec, Inc. and Biocentric Solutions Incorporated

The SmarTruck has three fingerprint identification modules, all located near a PanelMate display. Passengers cannot access a PanelMate display unless he or she is authorized to do so by a fingerprint verification.

Lightweight armor - International Armoring Corporation

The lightweight armor covers the entire vehicle except for the floorboards. Kevlar is used to create the armoring which is significantly lighter than other armoring materials and can withstand handguns up to and including a .44 magnum.

Remote control weapon station - International Armoring Corporation

Rear bucket seats in the SmarTruck slide to the center of the vehicle so the weapon control station can be accessed. The weapon rises out of the top of the cab through sliding doors at a push of the button on the rear console. Four cameras surrounding the weapon capture video that is shown on the quad display on the center of the console. A camera on the top of the weapon focuses on the target. The weapon can pan and tilt nearly 360 degrees. This action is controlled with a joystick; firing is controlled with a button.

Explosion detection: Suppress X-S

In the event of fuel ignition by spark, open fire, or projectile, heat is reduced with such high speed that burning is decelerated and high temperature and pressure are unattainable, thus, preventing an explosion.

Smoke screen - ICRC

This countermeasure is activated by the PanelMates. Smoke is pumped out of the exhaust pipe.

Oil slicks - ICRC

Oil slicks are also operated by the PanelMates. When activated, the oil from the reservoir is sent through dispensing pipes located at the rear of the vehicle which disperse the oil through several holes. This creates a very slippery surface for pursuers.

Bomb detection - ICRC

This equipment detects disturbances in the magnetic field of the vehicle. If someone were to place an item such as a bomb under the SmarTruck, a light in the dash would blink, warning the driver of the disturbance.

QUADRASTEER - Delphi Automotive Systems

QUADRASTEER is a rear steering system that allows the vehicle to steer with all four wheels. It combines conventional front-wheel steering with an electrically powered rear-wheel steering system. Trucks equipped with this system have a much smaller turning radius and increased maneuverability. Towing trailers is also much easier. This feature is a planned addition to the SmarTruck.

Vehicle PC - Valde Technologies, LLC.

This ruggedized onboard PC is an event recorder-much like the "black box" of an airplane. It can be attached to cameras that record outside activity with the weapons control station cameras.

Tack dispenser - ICRC

The tack dispenser is located near the rear axle of the vehicle. The tacks are designed to always hit the ground with one sharp point in the upright position. Deployment is controlled through the PanelMates.